

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A method for fabricating a semiconductor device, comprising the steps of:

(a) depositing an insulator ~~emposed~~ comprised of a single layer film of silicon oxide, silicon nitride, or silicon oxynitride or an insulator ~~emposed~~ comprised of a laminated film of two or more films selected from the single layer films over a semiconductor substrate by a chemical vapor deposition method; and

(b) after said step (a), performing a plasma treatment to said insulator in an atmosphere containing oxygen atoms, such that constituent atoms of said insulator are rearranged by oxygen ions in an oxygen plasma mainly comprised of ions containing oxygen atoms.

2. (previously presented) The method for fabricating a semiconductor device according to claim 1,

wherein a thickness of a silicon oxide formed over the semiconductor substrate by the plasma treatment is within a range of a 60% minimum limit to a 140% maximum limit of a

thickness of said insulator formed by the chemical vapor deposition method.

3. (previously presented) The method for fabricating a semiconductor device according to claim 1,

wherein said insulator formed by the chemical vapor deposition method is formed by an atomic layer deposition method.

4. (cancelled).

5. (previously presented) The method for fabricating a semiconductor device according to claim 1,

wherein pressure in a treatment chamber in said plasma treatment is 1 to 200 Pa.

6. (original) The method for fabricating a semiconductor device according to claim 1,

wherein said atmosphere contains water.

7. (previously presented) The method for fabricating a semiconductor device according to claim 1,

wherein said atmosphere contains an inert gas, and a flow rate of said inert gas is higher than a flow rate of a gas containing oxygen atoms.

8. (previously presented) The method for fabricating a semiconductor device according to claim 1,

wherein a film-forming temperature in said chemical vapor deposition method is 700°C or higher.

9. (currently amended) A method for fabricating a semiconductor device, comprising the steps of:

(a) depositing a relatively thick insulator made comprised of silicon oxide over a semiconductor substrate by a chemical vapor deposition method;

(b) after said step (a), performing a plasma treatment to said relatively thick insulator in an atmosphere containing oxygen atoms, such that constituent atoms of said relatively thick insulator are rearranged by oxygen ions in oxygen plasma mainly comprised of ions containing oxygen atoms; and

(c) patterning said relatively thick insulator so that said relatively thick insulator can be left at least in a thick-film region over said semiconductor substrate.

10. (original) The method for fabricating a semiconductor device according to claim 9, further comprising the steps of:

(d) after said step (c), performing at least a thermal oxidation treatment to said semiconductor substrate, thereby forming a relatively thin insulator in a thin-film region over said semiconductor substrate; and

(e) forming gate electrodes in said thick-film region and said thin-film region.

11. (previously presented) The method for fabricating a semiconductor device according to claim 9,

wherein said relatively thick insulator is formed so as to be left also in isolation regions adjacent to said thick-film region in said step of patterning said relatively thick insulator.

12. (original) The method for fabricating a semiconductor device according to claim 11, further comprising the step of:

forming trench isolations in said isolation regions.

13. (currently amended) A method for fabricating a semiconductor device, comprising the steps of:

(a) depositing a relatively thick insulator ~~made~~
comprised of silicon oxide on a semiconductor substrate by a
chemical vapor deposition method;

(b) after said step (a), performing a plasma treatment
to said relatively thick insulator in an atmosphere
containing oxygen atoms, such that constituent atoms of said
relatively thick insulator are rearranged by oxygen ions in
oxygen plasma mainly comprised of ions containing oxygen
atoms;

(c) patterning said relatively thick insulator so that
said relatively thick insulator can be left at least in a
thick-film region over said semiconductor substrate;

(d) depositing a relatively thin insulator ~~composed~~
comprised of a single layer film of silicon oxide, silicon
nitride, or silicon oxynitride or ~~composed~~ comprised of a
laminated film of two or more films selected from the single
layer films over said semiconductor substrate by the
chemical vapor deposition method;

(e) after said step (d), performing the plasma
treatment to said relatively thin insulator in an atmosphere
containing oxygen atoms, such that constituent atoms of said
relatively thin insulator are rearranged by oxygen ions in
oxygen plasma mainly comprised of ions containing oxygen
atoms; and

(f) forming gate electrodes in said thick-film region and a thin-film region.

14. (original) The method for fabricating a semiconductor device according to claim 13,

wherein said relatively thin insulator is formed to cover also isolation regions of said semiconductor substrate.

15. (original) The method for fabricating a semiconductor device according to claim 14, further comprising the step of:

forming trench isolations in said isolation regions.

16. (previously presented) The method for fabricating a semiconductor device according to claim 1,

wherein said plasma treatment is performed inside a plasma generation chamber.

17. (previously presented) The method for fabricating a semiconductor device according to claim 9,

wherein said plasma treatment is performed inside a plasma generation chamber.

18. (previously presented) The method for fabricating a semiconductor device according to claim 13,

wherein each said plasma treatment is performed inside a plasma generation chamber.

19. (new) The method for fabricating a semiconductor device according to claim 13,

wherein said relatively thick insulator is formed so as to be left also in isolation regions adjacent to said thick-film region in said step of patterning said relatively thick insulator.